

This listing of claims will replace all prior versions, and listings of claims in the application.

In the Claims:

[C1] (Original) An assay for testing a subject for diabetes or a predisposition to diabetes comprising: analysing a biological fluid from a subject for the presence of one or more proteins selected from the group consisting of Alpha 2 macroglobulin, Apolipoprotein A1, Immunoglobulin alpha heavy chain constant region, Immunoglobulin mu chain C region, Chain A of Human IgA1, Inter-alpha-trypsin inhibitor heavy chain H4 precursor, and Apolipoprotein B-100; wherein detection of the protein is indicative of diabetes or a predisposition to diabetes in the subject.

[C2] (Original) The assay according to claim 1 wherein the one or more proteins are detected by the presence of a peptide marker selected from the group consisting of:
AYIFIDEAHITQALIWLCSR (SEQ ID NO:1),
LLIYAVLPTGVDVIGDSAK (SEQ ID NO:2),
LLLQQVSLPELPGEYSMK (SEQ ID NO:3),
QGLLPVLESFK (SEQ ID NO:4),
LLDNWDSVTSTFSK (SEQ ID NO:5),
KEPSQGTTTFAVTSILR (SEQ ID NO:6),
VFAIPPSFASIFLTK (SEQ ID NO:7),
QEPSQGTTTFAVTSILR (SEQ ID NO:8),
WLQGSQELPR (SEQ ID NO:9),
LWAYLTIQQLLEQTVSASDADQQALR (SEQ ID NO:10),
AEAQAQYSAAVAK (SEQ ID NO:11),
YSQPEDSLIPFFEITVPESQLTVSQFTLPK (SEQ ID NO:12), and
IAIANIIDEIIEK (SEQ ID NO:13).

[C3] (Currently amended) The assay according to claim 1 or 2 wherein biological fluid is selected from the group consisting of urine, saliva, blood, blood products, serum, plasma, tears, cerebrospinal fluid, and lymph.

[C4] (Original) The assay according to claim 3 wherein the biological fluid is urine.

[C5] (Currently amended) The assay according to claim 1 ~~any one of claims 1 to 4~~ wherein the biological fluid is processed prior to analysis.

[C6] (Original) The assay according to claim 5 wherein the biological fluid is concentrated by membrane-based electrophoresis, TCA precipitation or acetone precipitation.

[C7] (Currently amended) The assay according to claim 1 ~~any one of claims 1 to 6~~ wherein proteins present in the biological fluid are digested to form peptide fragments which are detected by conducting mass spectrophotometric analysis on the digested sample.

[C8] (Currently amended) The assay according to claim 1 ~~any one of claims 1 to 7~~ wherein the subject is a human.

· [C9] (Original) An isolated peptide marker detectable in a biological sample of a subject and being indicative of diabetes or a predisposition to diabetes in a subject comprising one or more of the following amino acid sequences:
AYIFIDEAHITQALIWLSQR (SEQ ID NO:1),
LLIYAVLPTGDIVGDSAK (SEQ ID NO:2),
LLLQQVSLPELPGEYSMK (SEQ ID NO:3),
QGLLPVLESFK (SEQ ID NO:4),
LLDNWDSVTSTFSK (SEQ ID NO:5),
KEPSQGTTFAVTSILR (SEQ ID NO:6),
VFAIPPSFASIFLTK (SEQ ID NO:7),
QEPSQGTTFAVTSILR (SEQ ID NO:8),
WLQGSQELPR (SEQ ID NO:9),
LWAYLTIQQLLEQTVSASDADQQALR (SEQ ID NO:10),
AEAQAQYSAAVAK (SEQ ID NO:11),
YSQPEDSLIPFFEITVPESQLTVSQFTLPK (SEQ ID NO:12), or
IAIANIIDEIIEK (SEQ ID NO:13).

[C10] (Original) An isolated antibody directed to peptide marker according to claim 9.

[C11] (Original) The antibody according to claim 10 being a polyclonal antibody.

[C12] (Original) The antibody according to claim 10 being a monoclonal antibody.

[C13] (Currently amended) The antibody according to claim 10 to any one of claims 10 to 12 being detectably labelled.

[C14] (Original) An assay for testing a subject for diabetes or a predisposition to diabetes comprising:
obtaining a urine sample from a subject;
concentrating the urine sample;
digesting proteins present in the concentrated urine sample to form peptides;
optionally, separating the peptides; and
analysing the peptides for the presence of one or marker peptides having an amino acid sequence of any one of SEQ ID NOS:1 to 13, wherein the presence of marker peptides having an amino acid sequence of any one of SEQ ID NOS:1 to 13 is indicative of diabetes or a predisposition to diabetes in the subject.

[C15] (Original) The assay according to claim 14 wherein the peptides are detected using an antibody directed to a marker peptide having an amino acid sequence of any one of SEQ ID NOS:1 to 13.

Please charge any additional deficiencies or credit any overpayments to deposit account number 12-0913 with reference to our docket number (36180-102911).

Respectfully submitted,



Alice O. Martin
Registration No. 35,601

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Barnes & Thornburg
P.O. Box 2786
Chicago, IL 60690-2786